

ABSTRACT OF THE DISCLOSURE

A method of minimizing contamination of optical components of a laser resonator is disclosed. The resonator components are located in an enclosure, which may contain contaminants including water vapor and organic vapor released by the optical components, mounts of the optical components, or the enclosure itself. The enclosure may also contain suspended particulate matter. In order to reduce the level of these contaminants, a purging system extracts gas from the enclosure and passes the gas through a desiccant, an organic vapor trapping material, and a particulate matter filter then returns the extracted gas to the enclosure. The purging system is particularly useful for ultrafast lasers and ultraviolet lasers where the power of the laser radiation increases the probability of destabilizing reactions between laser radiation and contaminants.

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